

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
17 February 2005 (17.02.2005)

PCT

(10) International Publication Number  
**WO 2005/014036 A1**

(51) International Patent Classification<sup>7</sup>: **A61K 39/00**,  
39/385, A61P 35/00

(21) International Application Number:  
PCT/EP2004/008330

(22) International Filing Date: 25 July 2004 (25.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
0309188 25 July 2003 (25.07.2003) FR

(71) Applicants (for all designated States except US): **AC IMMUNE S.A.** [CH/CH]; EPFL-PSE Building B, CH-1015 Lausanne (CH). **UNIVERSITE DE REIMS** [FR/FR]; 9, boulevard de la Paix, F-51100 Reims (FR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **TOSI, P., F.** [FR/FR]; 9, boulevard de la Paix, F-51100 Reims (FR). **MADOULET, Claudine** [FR/FR]; 9, boulevard de la Paix, F-51100 Reims (FR). **NICOLAU, Claude** [FR/FR]; 9, boulevard de la Paix, F-51100 Reims (FR). **HICKMAN, David, T.** [FR/FR]; ISIS-Université Louis Pasteur, 8, allée Gaspard Monge, BP 70028, F-67083 Strasbourg Cedex (FR).

(74) Agent: **IPRIS INTELLECTUAL PROPERTY RIGHTS INTERGRATED SERVICES GMBH**; Missionstrasse 24, Ch-4055 Basel (CH).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: TARGETED THERAPEUTIC VACCINE AGAINST P-GLYCOPROTEIN 170 FOR INHIBITING MULTI-DRUG RESISTANCE IN THE TREATMENT OF CANCERS

(57) Abstract: The object of the invention is an immunogenic composition characterized in that it comprises a vehicle and conjugates as an antigenic structure, said conjugates fully or partially comprising amino acid sequences of at least one peptide derived from an extracellular loop of protein P-170. Each peptide is associated with several molecules of fatty acid of a carbon chain ranging from C12 to C24 in order to enable the induction of anti-P-170 antibodies in appropriate conditions of administration. The invention relates to said composition for the definition of multidrug resistance treatment means.

WO 2005/014036 A1